

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

THE FIRST PART OF THE HISTORY OF THE
CITY OF LONDON, FROM THE
BEGINNING OF THE CITY, TO THE
PRESENT TIME, IN TWO VOLUMES.

BY JOHN STOW, AN
ANTIENT AND MODERN
HISTORY OF THE CITY OF LONDON.

THE SECOND PART OF THE HISTORY OF THE
CITY OF LONDON, FROM THE
BEGINNING OF THE CITY, TO THE
PRESENT TIME, IN TWO VOLUMES.

THE HISTORY OF THE CITY OF LONDON.

FROM THE BEGINNING OF THE CITY, TO THE
PRESENT TIME, IN TWO VOLUMES.

THE FIRST PART OF THE HISTORY OF THE
CITY OF LONDON, FROM THE
BEGINNING OF THE CITY, TO THE
PRESENT TIME, IN TWO VOLUMES.

THE HISTORY OF THE CITY OF LONDON.

THE FIRST PART OF THE HISTORY OF THE
CITY OF LONDON, FROM THE
BEGINNING OF THE CITY, TO THE
PRESENT TIME, IN TWO VOLUMES.

THE SECOND PART OF THE HISTORY OF THE
CITY OF LONDON, FROM THE
BEGINNING OF THE CITY, TO THE
PRESENT TIME, IN TWO VOLUMES.

THE FIRST PART OF THE HISTORY OF THE
CITY OF LONDON, FROM THE
BEGINNING OF THE CITY, TO THE
PRESENT TIME, IN TWO VOLUMES.

THE SECOND PART OF THE HISTORY OF THE
CITY OF LONDON, FROM THE
BEGINNING OF THE CITY, TO THE
PRESENT TIME, IN TWO VOLUMES.

THE FIRST PART OF THE HISTORY OF THE
CITY OF LONDON, FROM THE
BEGINNING OF THE CITY, TO THE
PRESENT TIME, IN TWO VOLUMES.

THE SECOND PART OF THE HISTORY OF THE
CITY OF LONDON, FROM THE
BEGINNING OF THE CITY, TO THE
PRESENT TIME, IN TWO VOLUMES.

THE FIRST PART OF THE HISTORY OF THE
CITY OF LONDON, FROM THE
BEGINNING OF THE CITY, TO THE
PRESENT TIME, IN TWO VOLUMES.

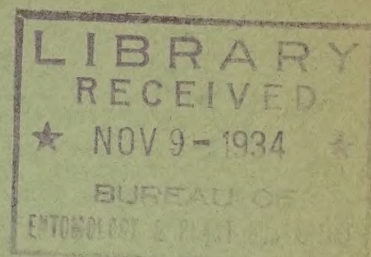
THE SECOND PART OF THE HISTORY OF THE
CITY OF LONDON, FROM THE
BEGINNING OF THE CITY, TO THE
PRESENT TIME, IN TWO VOLUMES.

THE FIRST PART OF THE HISTORY OF THE
CITY OF LONDON, FROM THE
BEGINNING OF THE CITY, TO THE
PRESENT TIME, IN TWO VOLUMES.

THE SECOND PART OF THE HISTORY OF THE
CITY OF LONDON, FROM THE
BEGINNING OF THE CITY, TO THE
PRESENT TIME, IN TWO VOLUMES.

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF CHEMISTRY AND SOILS
INSECTICIDE DIVISION

Patent List No. 25



A LIST OF
UNITED STATES PATENTS
Issued from 1917 to 1933 inclusive
relating to
APPARATUS FOR COMBATING INSECTS ON ANIMALS
Compiled by
R. C. Roark

Washington, D. C.
September, 1934

A LIST OF UNITED STATES PATENTS ISSUED FROM 1917 TO 1933, INCLUSIVE,
RELATING TO APPARATUS FOR COMBATING INSECTS ON ANIMALS

Compiled by

R. C. Roark

Insecticide Division, Bureau of Chemistry and Soils

This list comprises 184 patents. Of these the greater number, namely 103, describe hog-oilers, - that is, devices which distribute oil, disinfectant or insecticidal liquid upon hogs rubbing against them. Three patents describe devices for combating insects on dogs, 2 patents refer especially to sheep, 30 to cattle, 14 to horses, 29 to poultry and 3 to animals in general. These patents include dipping vats and apparatus for brushing flies off cows as they pass through a chute, devices for protecting the nostrils of horses against bot flies, and equipment for spraying, dusting and fumigating chickens.

Every effort has been made by the compiler to make this list of patents complete and no discrimination is intended against any patent mention of which is inadvertently omitted.

The Department of Agriculture assume no responsibility for the merits or workableness of any of the patents, nor does it recommend any of the inventions listed.

- - - - -

1,211,187 (Jan. 2, 1917; appl. Apr. 23, 1915). DEVICE FOR APPLYING LIQUID INSECTICIDES TO ANIMALS. Talbot Lennox, Marshalltown, Iowa. - This device for applying liquid disinfectants or insecticides to animals, preferably in the form of oil, and against which the animal may rub for applying to himself the disinfecting oil is operated by the animal.

1,212,415 (Jan. 16, 1917; appl. Dec. 14, 1912). RUBBING-POST. Ernest Starbuck, Peoria, Ill.,- Edward M. Smith, Peoria, Ill. - When a hog rubs against this device a small quantity of oil is discharged upon the animal.

1,213,129 (Jan. 16, 1917; appl. Oct. 26, 1916). CHICKEN-RENOVATOR. Robert E. Pack, Sioux City, Iowa. - This box is adapted to contain a chicken with its head protruding through a hole. Vermine on the fowl are killed by saturating absorbent material in the box with a suitable volatile insecticidal liquid.

1,213,682 (Jan. 23, 1917; appl. Dec. 4, 1915). HOG-OILER. Rolliance W. Oliver, Eldorado, Ohio. - A strong and durable construction adapted to enable hogs to obtain readily the desired amount of oil for destroying lice is described.

1,215,336 (Feb. 13, 1917; appl. Aug. 7, 1916). POULTRY-FUMIGATOR. Edna V. Bratton, Luray, Kans. - This device fumigates a fowl by the use of burning charcoal with or without such antiseptics as burning sulphur.

1,215,884 (Feb. 13, 1917; appl. May 3, 1916). MUZZLE FOR HORSES. Archie Smith and Wiley Forquer, Juanita, N. Dak. - This canvas muzzle protects the nose of the horse from the attacks of flies.

1,216,081 (Feb. 13, 1917; appl. July 20, 1916). HOG-OILER. Charles A. Cox, Quincy, Ill. - Moorman Mfg. Co., Quincy, Ill. - By means of this device oil, disinfectant, insecticide, or the like, may be applied to the hog automatically during the operation of scratching.

1,219,352 (Mar. 13, 1917; appl. Jan. 24, 1916; renewed Sept. 15, 1916). HOG-OILER. Albert J. Schepp and Herman J. Schepp, Manhattan, Kans. - This device discharges oil upon hogs rubbing against it.

1,221,484 (Apr. 3, 1917; appl. Jan. 22, 1917). HOG-OILING DEVICE. George A. Shores, Cedar Rapids, Iowa. - Shores-Mueller Co., Cedar Rapids, Iowa. - This rotatable lubricant applicator supplies medicative lubricant to a hog rubbing against it.

1,221,675 (Apr. 3, 1917; appl. Nov. 4, 1914). HOG-OILING DEVICE. Robert W. Carson, Rossville, Ind. - This endless chain device applies medicated oil or ointment to a hog rubbing against it.

1,225,456 (May 8, 1917; appl. July 21, 1916). ANIMAL-OILING DEVICE. William J. Marsh, Dexter, Iowa. - This rotatable cement wheel is mounted over a tank, oil from which is distributed over a hog rubbing against the device.

1,225,920 (May 15, 1917; appl. Sept. 8, 1914). RUBBING-POST. Reubin H. Bloomer, Council Bluffs, Iowa. - This device distributes oil on the back of a hog passing under and rubbing against it.

1,229,094 (June 5, 1917; appl. Oct 7, 1916). HOG-OILER. Benjamin F. Knerr, Gresham, Neb. - This horizontal tubular structure distributes oil over a hog passing through it.

1,229,435 (June 12, 1917; appl. July 29, 1916). HOG-OILER. Willard M. Flynn, Waterloo, Iowa. - This device distributes a medicinal fluid or oil upon a hog rubbing against it.

1,229,881 (June 12, 1917; appl. Apr. 12, 1917). MEDICATED EGG. John G. Burns, Pulaski, Tenn. - This egg is made of 5 parts plaster of Paris, 2 parts Portland cement and 2.8 parts flour of sulphur. The chamber in the egg is molded by inserting in the above mixture made plastic with water, a soft wooden plunger coated with country lye soap. One dram of copperas is added to each quart of water. In use a liquid disinfectant on absorbent cotton

is placed in the chamber and the opening closed with a cork.

1,230,843 (June 26, 1917; appl. Oct. 14, 1916). FOWL-DISINFECTANT APPARATUS. David B. Bird, Chicago, Ill. - Fowls are attracted by a cabbage bait to jump upon a perch which operates a mechanism to spray either liquid or powder disinfectant upon the birds.

1,233,286 (July 10, 1917; appl. Apr. 12, 1916). SPRAY HOG-OILER. Bick R. Bonney, Omaha, Neb. - J. W. Elwood, Omaha, Neb. - In this hog oiler a spray is thrown upon the hog as he passes through an obstructed gate way or passage way.

1,235,265 (July 31, 1917; appl. Aug. 24, 1914). ANIMAL-OILING DEVICE. Gustave Wenzelmann and William H. Harrison, Galesburg, Ill. - Harrison to Wenzelmann. - This invention relates to means attached to a centrally arranged supporting post and adapted to automatically apply vermin-destroying oil or the like to a hog or other animal as he rubs thereagainst in an attempt to allay the irritation caused by lice and other vermin.

1,237,606 (Aug. 21, 1917; appl. May 11, 1917). HOG-OILER OR ANIMAL-OILER. Rufus C. Boldry, Oskaloosa, Iowa. - Harry E. Davis, Oskaloosa, Iowa. - Wicking brings oil from a reservoir to a post against which animals may rub.

1,237,784 (Aug. 21, 1917; appl. Mar. 20, 1916). ANIMAL-OILER. Lucien W. Hurff, Galesburg, Ill. - This device while primarily intended for the purpose of applying oil to hogs, is equally as well adapted for use in applying parasite and vermin-destroying liquids to sheep and other animals.

1,238,093 (Aug. 28, 1917; appl. Apr. 19, 1916). HOG-OILER. Reubin H. Bloomer, Council Bluffs, Iowa. - When a hog rubs against this device a paddle splashes oil from a reservoir upon the animal.

1,238,900 (Sept. 4, 1917; appl. July 29, 1915). HOG-OILER. George W. Ericson, Galesburg, Ill. - William E. Hamerstrom, Galesburg, Ill. - This plate applies oil to a hog rubbing against it.

1,241,023 (Sept. 25, 1917; appl. Aug. 9, 1916). HOG-OILER. Elias Rizk, Sioux City, Iowa. - This ellipsoid roller picks up oil from a trough and distributes it on a hog rubbing against it.

1,241,495 (Oct. 2, 1917; appl. Apr. 19, 1915). HOG-OILER. Frank R. Children, Council Bluffs, Iowa. - E. Children's Sons Mfg. Co., Council Bluffs, Iowa. - A hog can rub its back, sides and belly against this oil distributing device.

1,243,127 (Oct. 16, 1917; appl. June 11, 1917). HOG-OILER. Clarence S. Andrews, Council Bluffs, Iowa. - This roller for applying oil to hogs is divided so that two or more hogs may rub against it at the same time.

1,243,961 (Oct. 23, 1917; appl. July 13, 1915). RUBBING-POST. Frank F. Miller, Yankton, S. Dak. - Elmer Hicks, Yankton, S. Dak. - This device permits a limited discharge of oil or disinfectant upon a hog rubbing against the actuating lever.

1,252,256 (Jan. 1, 1918; appl. Sept. 14, 1916). HOG-OILER. Harvey W. G. Frink, Carroll, Neb. - This oiling cylinder revolves in a trough.

1,252,728 (Jan. 8, 1918; appl. July 5, 1917). HOG-OILER. Bruce E. Sipe, Hiawatha, Kans. - A hollow wheel with roughened surfaces dips into a trough of oil and distributes the oil upon a hog rubbing against it.

1,255,601 (Feb. 5, 1918; appl. Jan. 27, 1917). COMB. John R. Hare, New Windsor, Md. - This comb is designed for removing fleas from dogs. The insects pass into a housing on the comb containing cotton or other fibrous material where they are killed by the application of hot water.

May
1,256,357 (Feb. 12, 1918; appl. May 18, 1917). HOG-OILER. Albert A. Nasser, Boyden, Iowa. - This device provides vertical rubbing members and also a horizontal rotatable cylinder against which the hog may rub.

1,256,828 (Feb. 19, 1918; appl. June 5, 1917). DEVICE FOR APPLYING INSECTICIDES TO ANIMALS. Murle Perry, Wahpeton, N. Dak. - This mechanism automatically feeds a liquid insecticide to a distributing member when the latter is moved by contact of an animal therewith.

1,258,763 (Mar. 12, 1918; appl. Jan. 5, 1917). FLY-CATCHER. Fitzhugh B. Girvin and Charles P. Brady, Georgetown, Tex. - As animals are driven through this chute, flies are brushed from them and collected in traps in the roof. In addition an insecticide or disinfectant fluid is distributed over the animals.

1,259,416 (Mar. 12, 1918; appl. Apr. 17, 1917). POULTRY INSECTICIDE-APPLICATOR. Alphonse La Breche, Jefferson, S. Dak. - Insecticide on a circular wick is held over a poultry drinking trough. As the chickens lower and raise their heads in drinking their heads are wiped by the wick.

1,260,339 (Mar. 26, 1918; appl. July 21, 1916). FLY-CATCHER. Nickless Crockenberger, Olpe, Kans. - This screened structure for receiving a cow has baited conical traps in the roof for catching flies.

1,263,527 (Apr. 23, 1918; appl. Apr. 16, 1917). SANITARY ARTIFICIAL NEST-EGG. Alvin T. Carson, Limon, Colo. - Domestic Products Corp., El Paso County, Colo. - This artificial egg is made of pulverized earthy matter such as talc, fine short fibers such as fine lint and about 12 1/2 percent of finely powdered naphthalene. The earthy matter destroys insects by clogging their tracheae.

1,269,352 (June 11, 1918; appl. Jan. 10, 1918). HOG-OILER. Basil H. Whaley, Brook, Ind. - When an animal rubs against this post, studs are pressed inward, allowing the escape of oil or disinfectant contained in a hollow cylinder.

1,270,234 (June 18, 1918; appl. July 17, 1917). HOG-OILER. Henry Storjohann, Garwin, Iowa. - When a hog rubs against this roller it rotates upwardly out of a trough containing oil.

1,270,425 (June 25, 1918; appl. Jan. 11, 1915). RUBBING-POST FOR ANIMALS. Ralph C. Lowes, Peoria, Ill. - This device consists of a vertical shaft and a rubbing sleeve surrounding it. When an animal rubs against the sleeve medicament is discharged upon the animal from a reservoir.

1,273,014 (July 16, 1918; appl. Nov. 27, 1917). HOG-OILER. Frank E. Tharp and Paul C. Ambler, Shenandoah, Iowa. - This oiling roller turns in a trough.

1,273,311 (July 23, 1918; appl. Apr. 22, 1918). SPRAYING APPARATUS. Eugene K. Barnes, Marietta, Ga. - As cattle are driven through this housing they are sprayed from above, below and the sides with a medicated liquid suitable for eradicating ticks.

1,276,591 (Aug. 20, 1918; appl. Jan. 29, 1917). HOG-OILER. William S. Swift, Independence, Mo. - This wheel rotates in one direction only and picks up oil from a trough.

1,276,972 (Aug. 27, 1918; appl. Feb. 7, 1917). ANIMAL-OILING DEVICE. Ferdinand H. Schultz, Treynor, Iowa. - Oil from a reservoir is distributed over this rubbing post.

1,289,458 (Dec. 31, 1918; appl. Sept. 4, 1917). ANIMAL-OILER. Lucien W. Hurff, Galesburg, Ill. - An animal-oiler comprises a frame having an opening for the passage of an animal, a frame reciprocable therein, a roller carried in the reciprocable frame, means for supplying liquid to the roller, and a pan carried by the reciprocable frame and adapted to catch the drip from the roller.

1,289,670 (Dec. 31, 1918; appl. Feb. 18, 1916; Renewed Dec. 20, 1916). HOG-OILER AND THE LIKE. Arthur H. Conelly and Theodore Schell, Macomb, Ill. - Macomb Sheet Metal Works, Macomb, Ill. - Oil from a reservoir is distributed to the outer surface of this vertical rubbing bar.

1,289,852 (Dec. 31, 1918; appl. Aug. 16, 1917). HOG-OILER. William J. Marsh, Dexter, Iowa. - This rubbing wheel which picks up oil from a trough is an improvement over the one described in U. S. Patent 1,225,456 issued May 8, 1917 to W. J. Marsh.

1,290,753 (Jan. 7, 1919; appl. May 13, 1918). HOG-OILER. Ernest S. Johnson, Webster City, Iowa. - This rotatable oil applicator is placed in an inclined position.

1,291,367 (Jan. 14, 1919; appl. July 1, 1918). HOG-OILER. John Barhite, Alden, Iowa. - A rotating cloth covered sleeve positioned at an angle of 45° from the ground is supplied with oil from a reservoir at its top.

1,295,114 (Feb. 25, 1919; appl. Feb. 9, 1915). DIPPING-WHEEL. Harley S. Busby, Washington, Iowa. - Western Hog Oiler Co., Washington, Iowa. - This hollow wheel rotates in a trough containing liquid disinfectant or medicine.

1,295,115 (Feb. 25, 1919; appl. Mar. 1, 1916). HOG-OILER. Harley S. Busby, Washington, Iowa. - This hollow ball picks up oil from a trough.

1,295,908 (Mar. 4, 1919; appl. Jan. 25, 1918). HOG-OILER. Herbert L. Little, Jeffersonville, Ohio. - This invention provides a rubbing element which, when pressed against by a hog, will operate means for discharging a limited amount of oil which will be guided downwardly onto the hog. Means are provided for collecting surplus oil discharges from the machine, said surplus being used for oiling a roller designed to apply oil to a hog.

1,297,753 (Mar. 18, 1919; appl. Oct. 19, 1917). NOSE GUARD. Edward R. Twitchell, Fargo, N. Dak. - This wire fabric cup-shaped nose guard prevents flies from entering the horse's nostrils.

1,298,804 (Apr. 1, 1919; appl. Aug. 24, 1911). RUBBING DEVICE FOR ANIMALS. Charles W. Sherman, Peoria, Ill. - R. C. Lowes, Peoria, Ill. This medicated grease distributor has two rubbing wheels each rotating in a direction transverse to the other.

1,300,297 (Apr. 15, 1919; appl. Aug. 5, 1918). STOCK-OILER. Glen Randall, Mitchell, Neb. - This device consists of hollow columns containing grease and arranged in the form of the letter H.

1,300,997 (Apr. 15, 1919; appl. July 11, 1918). VERMIN-EXTERMINATING DEVICE. George F. Moyers, Osceola, Iowa. - Chickens going to roost are forced to walk over this device which applies oil, grease or other exterminating liquid to their feet.

1,301,904 (Apr. 29, 1919; appl. Sept. 29, 1916). ANIMAL-OPERATED LIQUID-DISTRIBUTER. William C. Burrell, Kankakee, Ill. - Oil is distributed over this tiltable rubbing bar from a cup at the top.

1,302,979 (May 6, 1919; appl. July 24, 1918). HOG-OILER. Herman J. Schipper, Roann, Ind. - Strips of burlap soaked in oil are positioned near a feed trough.

1,303,815 (May 13, 1919; appl. Dec. 3, 1918). HOG-OILER. Harry J. Criner, Fort Madison, Iowa. - Edwin Urfer, Fort Madison, Iowa. - This device transfers oil to a hog rubbing against it.

1,305,965 (June 3, 1919; appl. Oct. 11, 1917). AUTOMATIC HOG OILER AND DISINFECTANT. Nicholas M. Doty, Alcester, S. Dak. - Oil is distributed over the back of a hog from a horizontal cylinder encased in cloth or other absorbent material when the animal passes under the device.

1,306,473 (June 10, 1919; appl. Sept. 5, 1918). HOG-OILER. Harry D. Duckham, Kenton, Ohio. - This rubbing bar is supplied with oil from a container above.

1,307,862 (June 24, 1919; appl. June 12, 1916). GUARD FOR PIGS. William D. James, Fort Atkinson, Wis. - James Mfg. Co., Fort Atkinson, Wis. - This shield for preventing small pits from being crushed by the mothers or other swine has a scratching and greasing attachment.

1,311,772 (July 29, 1919; appl. Mar. 27, 1917). POULTRY-DIPPING APPARATUS. Alva F. Randolph, Bloomfield, Iowa. - This device is placed at the exit of a poultry house. When a fowl enters this apparatus a section tilts and deposits the fowl in a tank filled with a suitable liquid.

1,311,933 (Aug. 5, 1919; appl. Oct. 17, 1918). HORSE'S NOSE PROTECTOR OR SHIELD. Frank P. Weigel, Flandreau, S. Dak. - This screen wire shield protects the animal's nostrils, mouth, and lower jaw against bot flies.

1,312,130 (Aug. 5, 1919; appl. May 6, 1918). FLY-TRAP FOR CATTLE. Charles F. Merrill, Jasper, Mo., and Everett E. Hall, Bayard, Kans. - Flies are brushed from an animal as it enters this structure and are collected in a receptacle.

1,314,274 (Aug. 26, 1919; appl. May 7, 1917). HOG-OILER. Charles J. Larkin, Cherokee, and Edward F. Fox and Erbie M. Fox, Des Moines, Iowa. - The Fox Chemical Co., Des Moines, Iowa. - This device distributes oil on a hog when the animal rubs against a lever.

1,315,309 (Sept. 9, 1919; appl. July 1, 1919). ANIMAL-SPRAYING APPARATUS. Niels C. Jensen, Fort Dodge, Iowa. - This device sprays disinfectant from above on a hog as it passes through a gate.

1,315,322 (Sept. 9, 1919; appl. Jan. 10, 1918). COMBINED STOCK RESTRAINING AND DIPPING DEVICE. William C. Mouser and John A. Speakman, New Holland, Ohio. - This apparatus is designed for dipping live stock.

1,315,583 (Sept. 9, 1919; appl. July 25, 1914). HOG-GREASER. Earnest Starbuck, Peoria, Ill. - Wilbert I. Slemmons, Peoria, Ill. - This endless chain device distributes oil or disinfectant on a hog rubbing against it.

1,316,097 (Sept. 16, 1919; appl. Aug. 23, 1918). HOG-OILER. Perry C. James, Macomb, Ill. - When an animal rubs against this device a dipper pours oil over the animal.

1,316,970 (Sept. 23, 1919; appl. Apr. 28, 1919). AUTOMATIC VACUUM-CUP HOG-OILER. Edgar F. Porter, Pella, Iowa. - This vertical reciprocating rubbing post is provided with a vacuum cup feed device.

1,318,159 (Oct. 7, 1919; appl. Jan. 27, 1919). HOG-OILER. Isaac W. Leeper, Des Moines, Iowa. - This device has hemispherical oil applying members which dip into a tank of oil and rotate when rubbed against.

1,318,477 (Oct. 14, 1919; appl. June 30, 1917; renewed Aug. 20, 1919). SHIELD. Joseph G. Bristol, Fargo, N. Dak. - This tubular body is made of wire mesh and is provided with a fringe of dangling cords. It is applied to the head of a horse to protect the nose of the animal against insects.

1,319,362 (Oct. 21, 1919; appl. July 24, 1914). RUBBING DEVICE FOR ANIMALS. Alvin V. Rowe, Galesburg, Ill. - This vertical rubbing bar is supplied with oil or grease from a reservoir at the top.

1,320,326 (Oct. 28, 1919; appl. Mar. 11, 1916). ANIMAL-OILER. Claude D. Enochs, East Shore Park, Minn. - This device discharges a definite amount of oil through a plunger action upon a hog rubbing against it.

1,327,088 (Jan. 6, 1920; appl. Aug. 19, 1916). HOG-OILER. George L. Curttright, Olin, Iowa. - This obliquely inclined rubbing rod has a reservoir of oil at the upper end, and this oil is distributed on an animal rubbing against the device.

1,335,629 (Mar. 30, 1920; appl. July 10, 1919). POULTRY-FUMIGATOR. Andrew Woudema, Demotte, Ind. - One-half to Dick De Young, Demotte, Ind. - This box holds a fowl with its head outside while insect powder or other insecticide is blown upon it by means of an electric fan.

1,338,084 (Apr. 27, 1920; appl. July 12, 1918). FLYTRAP. Charles H. Johnson, Colony, Kans. - As cattle pass through this screened structure the cattle or horse flies on them are brushed off and impounded.

1,339,543 (May 11, 1920; appl. Sept. 5, 1919). SANITARY NEST-EGG. Louis C. Bouma, Lynnville, Iowa. - This egg is constructed of wood. Liquid disinfectant is placed in an internal cavity and is brought to the surface by means of a wick.

1,340,071 (May 11, 1920; appl. Mar. 6, 1919). CATTLE-FLYTRAP. Charles F. Merrell, Jasper Mo., and Everett E. Hall, Bayard, Kans. - Flies on a cow are brushed off and impounded as the animal passes through this structure.

1,342,776 (June 8, 1920; appl. June 27, 1919). AUTOMATIC POULTRY-SPRAYER. Olaf E. Sundre, Arlington, Minn. - An insecticidal solution is sprayed on chickens as they pass through this device.

1,345,801 (July 6, 1920; appl. Oct. 18, 1919). DIPPING-VAT. Thomas L. Mullins, Aubrey, Tex. - Cattle are pushed into this vat by means of rollers.

1,355,057 (Oct. 5, 1920; appl. Nov. 11, 1919). BRIDLE ATTACHMENT. Charles H. Loomis, Edgeley, N. Dak. - This attachment swings beneath the lips of the horse and brushes flies away.

1,360,007 (Nov. 23, 1920; appl. July 8, 1919). HOG-OILER. Arthur Morrison, Hamilton, Ill. - Oil or liquid insecticide is distributed from a reservoir to a rubbing standard by means of wicks.

1,371,200 (Mar. 8, 1921; appl. May 17, 1920). FLY OR OTHER INSECT TRAP. Oren M. Dorsey, Pollock, La. - As an animal passes through this darkened tunnel-like structure the flies are brushed off and collect in conical traps in the roof where they may be killed by holding a torch adjacent the trap.

1,380,189 (May 31, 1921; appl. June 21, 1920). STOCK-CHUTE FOR DIPPING-VATS. Clement P. Burt, Wallis, Tex. - This chute tilts under the weight of the animal and precipitates it into the vat.

1,381,715 (June 14, 1921; appl. July 10, 1920). HOG-OILING APPARATUS. Paul P. Larkin, South Charleston, Ohio. - A hog in passing through the gates of this device operates a mechanism which drops oil on its back.

1,382,066 (June 21, 1921; appl. Apr. 26, 1919). HOG-OILER. James R. Curran, Shenandoah, Iowa. - This device is installed at a gate opening and applies antivermin oil to animals passing through by means of rollers.

1,384,168 (July 12, 1921; appl. Dec. 3, 1919). DISMOUNTABLE AND PORTABLE PLANT FOR DIPPING SHEEP AND THE LIKE. Carlos B. Svensen, Buenos Aires, Argentina. - This plant is used for treating sheep for mange.

1,389,435 (Aug. 30, 1921; appl. Sept. 15, 1919; renewed Feb. 1, 1921). HOG-OILER. Charley Burnett, Washington Court House, Ohio. - When an animal rocks this frame, disinfectant in a tiltable tank is applied to it.

1,390,611 (Sept. 13, 1921; appl. Feb. 15, 1921). HOG-OILER. Charles A. Haisley, Richmond, Ind. - A vertical rotatable drum surrounds a standard with an oil reservoir on top.

1,396,257 (Nov. 8, 1921; appl. Mar. 17, 1920). AUTOMATIC DOSER AND SELF-FEEDER. James W. Corington, Faucett, Mo. - Crude oil on a wick is rubbed against a hog's back when he steps up to the feed trough. This device may also supply a dose of tonic or medicine to a hog.

1,396,533 (Nov. 8, 1921; appl. Sept. 12, 1919). AUTOMATIC FOWL-SPRAY. Bruce A. Shaw, Oak Park, Ill. - A fowl in passing through this device, which is set in the entrance of the hen house, steps into a louse-killing fluid and at the same time is automatically sprayed from above by the same liquid.

1,413,536 (Apr. 18, 1922; appl. May 5, 1920). ANIMAL TRAP. Charles H. Johnson, Colony, Kans. - Flies on a cow are brushed off and fly upward into a trap as the animal enters this structure.

1,425,348 (Aug. 8, 1922; appl. Apr. 11, 1922). VERMIN-DESTROYING NEST EGG. Edwin T. Stuart, West Fork, Ark. - One-half to Charles R. Cahn, West Fork, Ark. - This hollow nest egg which may be made of rubber, contains powdered insecticide and also a liquid insecticide in a tube fitted with porous plugs.

1,427,204 (Aug. 29, 1922; appl. Nov. 5, 1920). FLYTRAP FOR USE WITH LIVE STOCK. John W. Gibbons, Merced Falls, Calif. - One-half to Timothy Carlon, La Grange, Calif. - When a cow enters this shed the flies on it are brushed off and trapped as they fly to the only source of light - the roof.

1,429,206 (Sept. 12, 1922; appl. Nov. 8, 1920). DISTRIBUTOR FOR SPRAYING ANIMALS. John Truckenbrodt and Niels C. Jensen, Fort Dodge, Iowa. This apparatus sprays insecticide from above on a hog as it passes through a gate.

1,433,081 (Oct. 24, 1922; appl. Nov. 7, 1921). POULTRY FEEDER AND DISINFECTOR. Harry Kenyon, Forest Hill, Md. - This device is so arranged that while poultry are feeding from it their backs may rub against the wire fabric bottoms of the compartments and thereby cause the disinfectant to automatically discharge upon their backs for the purpose of exterminating vermin.

1,438,410 (Dec. 12, 1923; appl. June 6, 1921). AUTOMATIC HOG-OILING DEVICE. John W. Taylor and John W. Osborne, Winchester, Ill. - One-half of said Osborne's right to William E. Tayler, Winchester, Ill. - This machine for spraying oil or powder upon hogs or other animals is operated when the animal walks upon a platform.

1,442,891 (Jan. 23, 1923; appl. Dec. 19, 1921). HOG-OILER. Isaac W. Leeper, East Moline, Ill. - One-Half to J. Lawrence Greer, East Moline, Ill. - Oil is applied to the hog by the hog rubbing against rubbing discs which are movable mounted and extent into an oil pan.

1,453,674 (May 1, 1923; appl. Dec. 15, 1921). POULTRY-DIPPING MACHINE. Clarence E. Hedrick, Newton, Kans. - This invention consists of a runway of box-like structure adapted to be put in communication with the outlet of a poultry house and provided with a hinged bottom which will automatically drop the poultry into the germicidal fluid by the weight of the poultry thereon. This invention is designed for removing vermin and scale from the body and legs of fowls.

1,459,349 (June 19, 1923; appl. Nov. 3, 1922). FOWL POWDERER. Fred V. Ackeren, Cedar Rapids, Neb. - This apparatus consists of an elongated chamber through which the fowls pass. The weight of the fowls on a platform actuates bellows at each side of the device and powder is blown on to the fowls for the purpose of killing vermin on them.

1,459,601 (June 19, 1923; appl. Apr. 14, 1922). HORSE PROTECTOR. Elmer M. Orstad, Park River, N. Dak. - This wire screen structure protects the nose and the throat of a horse against bot flies.

1,460,561 (July 3, 1923; appl. Oct. 11, 1921). HOG-OILER. Clarence N. Peterson, Polk, Neb. - This device sprays oil or a chemical solution on a hog when he steps on a treddle located in the doorway.

1,471,109 (Oct. 16, 1923; appl. Oct. 14, 1922). HOG OILER. David S. Dick, Hawarden, Iowa. - This device consists of a cylinder covered with absorbent material to which oil is brought by means of wicks. It is mounted in a gateway so that animals pass under it.

1,473,532 (Nov. 6, 1923; appl. Nov. 10, 1921). ANIMAL DIP AND INSECT TRAP. Daniel H. Womack, Montgomery, Tex. - A screened structure is placed over a dipping vat to entrap flies.

1,478,178 (Dec. 18, 1923; appl. Dec. 15, 1922). AUTOMATIC HOG OILER. Nick M. Doty, Alcester, S. D. - This rotatable cylinder for applying oil to a hog passing under it has an oil tank located inside it. This device is an improvement over the other described in U. S. Patent 1,305,965 issued June 3, 1919 to N. M. Doty.

1,483,506 (Feb. 12, 1924; appl. July 20, 1923). FLY CHASER AND CATCHER. Rufus C. Brewster, Lewisburg, W. Va. - Wipers of cedar brush remove flies from a cow as the animal passes through this structure.

1,487,147 (Mar. 18, 1924; appl. Feb. 28, 1923). NOSE GUARD FOR DRAFT ANIMALS. Francis A. Coughlin, Burnstad, N. Dak. - This invention provides a nose guard which may be removably secured to the animal's bridle to protect said animal from the annoyance of flies and other insects.

1,488,768 (Apr. 1, 1924; appl. Sept. 8, 1922). INSECT GUARD AND MUZZLE. John R. Tobin and Charles J. Tobin, Langford, S. Dak. - This device protects the lips of the horse against gadflies.

1,492,142 (Apr. 29, 1924; appl. May 11, 1923). MACHINE FOR TREATING LIVE STOCK. Murry Shoemaker, Artesian, S. Dak. - Animals passing under this perforated drum may have liquid or powder insecticide applied to them.

1,493,411 (May 6, 1924; appl. Sept. 9, 1922). COMBINED DIPPING TANK AND INSECT TRAP. Daniel H. Womack, Dacus, Tex. - This dipping vat for animals is covered with a screened structure for entrapping flies.

1,494,236 (May 13, 1924; appl. Sept. 4, 1923). NOSE GUARD. Andrew B. Reif, Hazen, N. Dak. - This leather guard protects the nose of the horse against the attacks of flies.

1,498,664 (June 24, 1924; appl. Jan. 31, 1923). TRAP. William O. McCormack, Florence, Ala. - One-half to William R. McKerral, Florence, Ala. - This device consists of a tank for dipping cattle. Bait is provided on a hook, and in attempting to remove this the mechanism is operated and the animal drops into the tank.

1,500,301 (July 8, 1924; appl. Feb. 23, 1922). CONTAINER. Benjamin F. Cummings, Reeds Spring, Mo. - This egg shaped hollow body has 4 compartments in which disinfectant or odoriferous material may be placed.

1,505,641 (Aug. 19, 1924; appl. Feb. 14, 1922). POULTRY-SPRAYING APPARATUS. Elwood D. Hendrickson, Seattle, Wash. - When a fowl steps on the platform in this device it is automatically sprayed with a louse-killing liquid or powder.

1,506,290 (Aug. 26, 1924; appl. Oct. 13, 1923). OILER FOR POULTRY AND ANIMALS. John W. Cardwell, Republic, Kans. - One-half to Frank Z. Stover, Republic, Kans. - This device is so constructed that the weight of an animal or fowl stepping on a platform will operate the oil delivery device and automatically deposit a predetermined quantity of oil on the animal or fowl operating it.

1,508,749 (Sept. 16, 1924; appl. Apr. 18, 1922). APPARATUS FOR APPLYING INSECTICIDES. Henry F. Kuehn, Seattle, Wash. - This apparatus is designed for suspending a fowl in head-down position and blowing a blast of insecticide in a general downward direction against the body of the fowl.

1,509,464 (Sept. 23, 1924; appl. Feb. 25, 1924). POULTRY DISINFECTING DEVICE. Thomas A. Barry, New Holland, Ill. - This device is controlled by a treadle operated by the fowls so that when they walk upon the device and depress the treadle, the spraying device will automatically come into play to spray the fowls with a vermin exterminating liquid.

1,511,450 (Oct. 14, 1924; appl. Apr. 15, 1920; renewed Jan. 11, 1924).

SPRAYING APPARATUS FOR LIVE STOCK. James C. Findlay, San Francisco, Calif. - Cattle, sheep, hogs, and other live stock, in this pen are sprayed from above, below and the sides. It is claimed that this apparatus will handle as many as 3,000 sheep an hour.

1,512,530 (Oct. 21, 1924; appl. May 18, 1922). CHICKEN-DELOUSING APPARATUS. Albert G. Fransen, Chicago, Ill. - This apparatus consists of a housing through which chickens can pass in one direction only, and in doing so the fowls brush against absorbent material adapted to contain an insecticide.

1,516,202 (Nov. 18, 1924; appl. Aug. 16, 1923). NOSE FLY SHIELD FOR HORSES. William D. Nelson, Terril, Iowa. - This invention provides a device which is especially adapted for the purpose of shielding the nose of a horse from flies and more particularly those commonly known as nose flies.

1,516,861 (Nov. 25, 1924; appl. Aug. 9, 1923). HOG GREASER. Fred H. Le Valley, Huron, S. Dak. - This device consists of a pipe provided with a plurality of perforations around which a rope is coiled. The lower part of the pipe is closed and is driven into the ground to a depth of about three feet. Lubricant in the pipe is forced out through the perforations and between the coils of rope by means of a plunger piston operated from the top of the pipe.

1,519,608 (Dec. 16, 1924; appl. May 7, 1924). HOG-LUBRICATING APPARATUS. Albert D. Fey, Charles S. Nicholson, and Ned J. Nicholson, Scranton, Iowa. - This device consists of a pipe with perforations containing a solid grease such as mica axle grease which is forced out through the perforations by means of a piston from above. A screen is placed around the outside of the pipe against which the hogs rub.

1,522,426 (Jan. 6, 1925; appl. Dec. 3, 1923). HOG OILER. William E. Durham, Republic, Kans. - Oil is distributed over the back of a hog as it passes through a chute.

1,527,611 (Feb. 24, 1925; appl. Feb. 14, 1924). POULTRY-DUSTING DEVICE. Ora O. Snider and Thomas F. Rigg, Fort Wayne, Ind. - When a chicken steps on a platform in this housing an electric fan blows powdered insecticide on it.

1,528,402 (Mar. 3, 1925; appl. Dec. 16, 1924). HOG OILER. Elmer R. Clements, Riverton, Neb. - This device consists of an oil container surrounded by felt and a flexible jacket. The oil reaches the felt through perforations.

1,535,614 (Apr. 28, 1925; appl. Jan. 16, 1924). HOG SPRAYER. Andrew McPherson, Ward, S. Dak. - This device sprinkles liquid insecticide on the back of a hog passing under a gate.

1,535,839 (Apr. 28, 1925; appl. Feb. 29, 1924). AUTOMATIC HOG-OILING DEVICE. Orlando A. Lemon, York, Neb. - A hog is sprayed with disinfectant or insecticide as it passes through this device.

1,541,805 (June 16, 1925; appl. Jan. 22, 1924). FLYTRAP. Clifford A. Fleming, Huntsville, Mo. - Flies on a cow are brushed off as the animal passes through this structure and fly upward into a trap.

1,542,891 (June 23, 1925; appl. July 6, 1923). POULTRY FEEDER. John H. Klaassen, George, Iowa. - This device applies oil to the heads of young chicks as they raise their heads from a feeding trough.

1,543,601 (June 23, 1925; appl. April, 1924). HOG OILER. Elmer R. Clements, Riverton, Neb. - Felt surrounding an oil cylinder is kept impregnated with oil which escapes through perforations in the cylinder.

1,543,960 (June 30, 1925; appl. Oct. 14, 1924). INSECT GUARD AND MUZZLE. John R. Tobin and Charles J. Tobin, Langford, S. Dak. - This leather or canvas guard protects the lips of the horse against hadflies.

1,546,898 (July 21, 1925; appl. Dec. 10, 1924). HOG OILER. Herman H. Hicken, Winner, S. Dak. - A hog in pushing through this gateway causes oil to be poured on its back.

1,552,846 (Sept. 8, 1925; appl. July 18, 1924). HOG OILER. Robert Kunath, Jefferson, S. Dak. - This device consists of a rotatably mounted conical container which discharges oil through perforations upon a hog rubbing under it.

1,556,935 (Oct. 13, 1925; appl. Feb. 20, 1925). VERMIN EXTERMINATOR. Glenn A. Hixon, Shawnee, Okla. - When a chicken steps on a depressible platform in this device powder is blown upon it from all directions by means of compressed air.

1,558,251 (Oct. 20, 1925; appl. May 5, 1924). FLYTRAP. James V. DeWitt, Vidor, Tex. - Flies are brushed from a cow as the animal passes through this structure and are caught in a trap.

1,559,430 (Oct. 27, 1925; appl. Feb. 2, 1924). LIVESTOCK FLYTRAP. James B. Hockersmith, Taylorville, Ill. - As a cow passes through this cabinet the flies on it are brushed off and caught in a trap in the roof.

1,559,781 (Nov. 3, 1925; appl. July 15, 1924). HOG OILER. John Roberts, Winner, Neb. - Oil from a tank is sprayed on the back of a hog when it steps on the depressible platform of this device.

1,562,318 (Nov. 17, 1925; appl. Nov. 2, 1923). STOCK-DISINFECTING COVER. Victor E. Erlandson, Osakis, Minn. - This cover for the legs and under half of the body of a cow or other animal is trough-shaped and is adapted to hold a disinfecting solution in contact with the animal.

1,566,558 (Dec. 22, 1925; appl. June 26, 1925). HOG OILER. Thomas E. Peck and Frank W. Harrison, Sioux City, Iowa. - Oil is sprayed on a hog when it passes through this gateway.

1,569,904 (Jan. 19, 1926; appl. Mar. 21, 1924). TRAP FOR CATTLE FLIES. Joseph Wright, Lancaster, Wis. - As cattle pass through this structure the flies on them are brushed off and caught in a trap in the roof.

1,576,046 (Mar. 9, 1926; appl. May 14, 1925). SPRAYING DEVICE. George A. Guthrie, Forgan, Okla. - One-half to Miron E. Guthrie, Forgan, Okla. - This device, which is placed at the exit of a hen house, tilts when a chicken enters it and sprays an insecticidal liquid upon it.

1,577,435 (Mar. 23, 1926; appl. Feb. 29, 1924). FLYTRAP FOR STOCK. Selmon Abbott, Taylorville, Ill. - As cattle pass through this structure flies on them are brushed off and caught in a trap in the roof.

1,577,938 (Mar. 23, 1926; appl. May 22, 1923). ANIMAL OILER. Charles R. Stanton, Stuart, Iowa. - Hogs passing through a doorway are coated with oil by rubbing against a series of vertical chains.

1,580,357 (Apr. 13, 1926; apol. Apr. 14, 1925). AUTOMATIC POULTRY DIPPER. William H. Wike, Sycamore, Ill. - This device has a tilting platform which throws a fowl stepping on it into a tank of chemical solution.

1,581,544 (Apr. 20, 1926; appl. Sept. 3, 1925). ANIMAL-SCRATCHING DEVICE. Emil Pflaum, Omaha, Neb. - This device discharges oil on the back of an animal passing under it.

1,582,144 (Apr. 27, 1926; appl. Feb. 28, 1925). ANIMAL-SCRATCHING DEVICE. Emil Pflaum, Omaha, Neb. - This device discharges oil upon animals passing under it.

1,597,663 (Aug. 31, 1926; appl. Nov. 26, 1924). ANIMAL OILER. Andrew Anderson, Rockford, Ill. - This device discharges oil in the back of an animal rubbing against it.

1,600,454 (Sept. 21, 1926; appl. Jan. 18, 1924). FLYTRAP. John O. Cox, Colony, Kans. - As a cow passes through this structure the flies on it are brushed off and collected in a trap in the roof.

1,603,053 (Oct. 12, 1926; appl. Feb. 13, 1924). INSECT-CATCHING DEVICE. Arthur O. Leffler, Stayton, Ore. - Insects on cattle, horses, sheep or other domestic animals are blown off by an air blast from below and are collected by suction in a funnel held over the animal.

1,604,303 (Oct. 26, 1926; apol. Apr. 10, 1926). STOCK OILER. Thomas E. Peck and Frank W. Harrison, Sioux City, Iowa. - An animal is sprayed with oil as it passes through this gateway. This device is an improvement over the one described in U. S. Patent 1,566,558 issued Dec. 22, 1925, to T. E. Peck and F. W. Harrison.

1,620,013 (Mar. 8, 1927; appl. Nov. 10, 1926). HOG SPRAY. Allen H. Eckerman, Sioux City, Iowa. - Oil is sprayed on a hog as he passes through this gateway.

1,625,677 (Apr. 19, 1927; apol. July 19, 1926). HOG GREASER. Herbert B. Palm and Bernard L. Palm, Haron, S. D. - This rubbing post is divided with means for automatically applying grease to hogs rubbing against it.

1,627,516 (May 3, 1927; appl. July 24, 1926). AUTOMATIC CARRIER AND OILER. Erick Larson, Paullina, Iowa. - This invention is an improvement over that described in U. S. Patent 1,568,226, granted on Jan. 5, 1926, to E. Larson. It provides an oiling device in connection with the brushes of an automatic carrier so that oil will be applied to an animal moving between the brushes.

1,632,635 (June 14, 1927; appl. June 28, 1926). FLYTRAP. Raolo Taylor and John W. Cooper, Sedalia, Mo. - This structure brushes flies from cattle entering it and catches them in a trap in the roof.

1,635,951 (July 12, 1927; appl. Sept. 14, 1926). FLYTRAP. Edward M. Newcomer, Newburg, Iowa. - Flies on a cow are swept off as the animal passes through this structure and are caught in a trap in the ceiling.

1,636,624 (July 19, 1927; appl. June 22, 1926). HOG OILER, Elmer R. Clements, Riverton, Neb. - When a hog presses against this device oil is forced from a wick on to the exterior surface of the device. This invention is an improvement over the one described in U. S. Patent 1,636,624 issued Mar. 3, 1925 to E. R. Clements.

1,654,363 (Dec. 27, 1927; appl. Dec. 9, 1926). HORSE NOSE GUARD. Christian G. Christiansen, Fingal, N. Dak. - This leather guard protects the horse's nose against flies.

1,677,560 (July 17, 1928; appl. Mar. 26, 1927). HOG-OILING DEVICE. Alvin J. Koerner, Freeman, S. D. - This device comprises a stationary supporting frame structure, within which is vertically slidably disposed the oiling mechanism per se, so that animals of different sizes may pass therethrough and become properly oiled, during such movement.

1,696,460 (Dec. 25, 1928; appl. May 10, 1927). POULTRY-SPRAYING DEVICE. Peter Teyen and Alfred Teyen, Pomeroy Iowa. - This device sprays disinfectant on a chicken when it steps on a depressible platform.

1,704,724 (Mar. 12, 1929; appl. Apr. 2, 1928). ANIMAL OILER. John T. Chudomelka, Dodge, Neb. - The device comprises an elongated arcuate brush supported by a frame and to which oil or medicated liquid is supplied from a tank with a valve actuated by contact of an animal with the brush.

1,710,314 (Apr. 23, 1929; appl. June 22, 1927). DEVICE FOR APPLYING LIQUIDS TO ANIMALS. Joseph M. Kyle, Greene, Iowa. - This device automatically and continuously maintains a supply of a medicinal or insecticidal liquid in a pad for application to the skin of animals rubbing against it.

1,715,241 (May 28, 1929; appl. Dec. 9, 1927). THROAT, NOSE, AND LIP GUARD. James J. Long, Melvin, Ill. - This fringed device is positioned below the horse's jaw to protect the animal against nose and bot flies.

1,721,731 (July 23, 1929; appl. June 21, 1928). COMBINED GATE AND LIQUID DISPENSER. Laurits Hensen, Omaha, Neb. - A small swinging gate for the passage of swine or sheep is provided with a fabric cover which is automatically saturated with oil or medicated liquid from a tank and which presses against the backs of animals passing through.

1,724,345 (Aug. 13, 1929; appl. Feb. 21, 1927). HOG GREASER. William A. Elliott, Storm Lake, Iowa. - Carrie E. Elliott, Storm Lake, Iowa. - This device includes a movable member with a perforated rubbing surface through which grease is forced into contact with the skin of an animal rubbing against it.

1,728,443 (Sept. 17, 1929; appl. Sept. 10, 1928). HORSE MUZZLE AND FLY SHIELD. Clarence Perkins, Eldora, Iowa. - Metal straps are attached to a bridle to prevent the lodgment of flies and other insects on the animal's nose and mouth.

1,731,181 (Oct. 8, 1929; appl. Nov. 2, 1927). HOG GREASER. William E. Shimp, Hull, Iowa. - A grease box, which is swingably suspended from a support, has openings in the side and grease applying rollers arranged in these openings. A valve controlling the supply of grease from the box to the rollers is actuated by a hog rubbing against the rollers.

1,734,035 (Nov. 5, 1929; appl. Dec. 26, 1928). COMBINATION HOG OILER AND FEEDER. Charles W. Hargraves, Yeoman, Ind. - A cylindrical body covered with an absorbent material supplied with oil from a central feed pipe applies oil to the skin of an animal rubbing against it. Two of these oils are so arranged that the rubbing of animals against them actuates the internal agitating elements of a complemental feeder.

1,747,597 (Feb. 18, 1930; appl. Apr. 5, 1929). HOG OILER. Klaas Pfeifer, Platte, S. Dak. - A roller turns in a trough of oil so that the surface is coated with oil when the roller is turned.

1,751,669 (Mar. 25, 1930; appl. Oct. 27, 1928). STOCK GATE. William P. Thatch, Madison, Neb. - Germicidal and lubricating oil or preparation is applied to the heads and bodies of animals passing through a gate.

1,756,648 (Apr. 29, 1930; appl. May 12, 1928). FLYTRAP. Emil V. Lillian, Lindsborg, Kans. - As cattle are driven through this structure in double file, flies on them are brushed off and directed into a trapping compartment.

1,767,560 (June 24, 1930; appl. Sept. 12, 1928). CATTLE-TREATING APPARATUS. Joe Snyder, Iroquois, S. Dak. - This device sprays insecticide from all sides upon an animal when it steps upon a depressible platform.

1,800,602 (Apr. 14, 1931; appl. June 19, 1928). AUTOMATIC BACK SCRATCHER FOR ANIMALS. Samuel F. Cole, St. Joseph, Mo. - A back scratcher for animals comprises a bowed element, a wick element secured to the under side of the bowed element, and solid scratching elements secured to the bowed element and arranged below and at the sides of the wick element, and means for supplying an insect repellent oil.

1,810,228 (June 16, 1921; appl. Mar. 8, 1928). CHICKEN TREATER. Joe Snyder, Iroquois, D. Dak. - This device shakes powdered insecticide on a chicken when it steps on a bar.

1,817,449 (Aug. 4, 1921; appl. Feb. 8, 1924; renewed Jan. 17, 1930). STOCK OILER. Harry N. Vaughn, Villa Park, Ill. - A perforated rotatable

cylinder filled with oil or insecticide is wrapped with burlap on other permeable material.

1,818,419 (Aug. 11, 1931; appl. May 13, 1930). PIG FEEDING AND OILING DEVICE. Oscar Miller, Spokane, Wash. - Pigs pressing against this oil applicator cause feed to gravitate to the feed trough.

1,834,175 (Dec. 1, 1931; appl. May 27, 1929; renewed May 11, 1931) ANIMAL SPRAY. Thomas E. Peck, Sioux City, Iowa. - This invention provides a device in which the action of the gate members in being pushed apart serves to actuate a pump device for forcibly spraying downwardly a spray of oil or disinfectant adapted to cover the animal such as hogs and cattle passing through the gate and to be deposited upon the gate members from which it will be transferred to the body of the animal.

1,837,571 (Dec. 22, 1931; appl. Mar. 24, 1930). GREASING DEVICE FOR ANIMALS. Wilfred Morris, Mingo, Iowa. - A rotatable vertical cylinder applies oil or grease (axle grease) to animals rubbing against it.

1,840,732 (Jan. 12, 1932; appl. Aug. 14, 1929). NOSE GUARD. Lorain C. Medearis, Storm Lake, Iowa. - A wire fabric structure of the basket type protects the horse's nostrils from flies.

1,840,957 (Jan. 12, 1932; appl. Aug. 21, 1929). MOUTH GUARD FOR ANIMALS. Henry J. Kaehler, Walnut Grove, Minn. - This bag-like leather device protects the horse's mouth against insects.

1,879,915 (Sept. 27, 1932; appl. June 10, 1929). PORTABLE ANIMAL BATH. Daisy E. Smoot, Apopka, Fla. - One-fourth to Janie I. Carroll, Orlando, Fla. - This portable device holds a dog while it is being washed or treated with a disinfectant or flea poison.

1,885,342 (Nov. 1, 1932; appl. June 3, 1931). STOCK TREATING APPLIANCE. Jacob H. Graves, Lexington, Ky. - Sheep in attempting to reach medicated salt (used for treating stomach worms) must stand in a receptacle containing a solution of bluestone (used for treating foot rot).

1,886,635 (Nov. 8, 1932; appl. Aug. 5, 1929). HOG GREASER. Millard K. Brown, Eagle Grove, Iowa. - A central stationary support has mounted, telescoping with it and to oscillate thereon, a perforated container for graphite grease. The lubricant is expressed through the perforations by the oscillations caused by rubbing of a hog against the greaser.

1,890,163 (Dec. 6, 1932; appl. June 26, 1930). ANIMAL BED CONSTRUCTION. Charles M. Rose, Louisville, Ky. - This bed for dogs and cats has vaporous chemicals placed beneath it, the fumes from which have a beneficial effect on the animal and keep the bed in a sanitary condition.

1,933,071 (Oct. 31, 1933; app. Feb. 4, 1928). HOG OILER. Jacob Reins and Joe Snyder, Iroquois, S. Dak. - This horizontal roller applies oil to hogs passing under it.

ASSIGNEE INDEX

(Numbers refer to patents cited)

Carlson, Timothy, 1,427,204
Carroll, Janie I., 1,879,915
Cauln, Charles R., 1,425,348
E. Children's Sons Mfg. Co., 1,241,495
Davis, Harry E., 1,237,606
De Young, Dick, 1,335,629
Domestic Products Corp., 1,263,527
Elliott, Carrie E., 1,724,345
Elwood, J. W., 1,233,286
Fox Chemical Co., 1,314,274
Greer, J. Lawrence, 1,442,891
Guthrie, Miron E., 1,576,046
Hamerstrom, William E., 1,238,900
Hicks, Elmer, 1,243,961
James Mfg. Co., 1,307,862
Lowe, R. C., 1,298,804
McKerall, William R., 1,498,664
Macomb Sheet Metal Works, 1,289,670
Moorman Mfg. Co., 1,216,081
Shores-Mueller Co., 1,221,484
Slemmons, Wilbert I., 1,315,583
Smith, Edward M., 1,212,415
Taylor, William E., 1,438,410
Urfer, Edwin, 1,303,815
Wenzelmann, Gustave, 1,235,265
Western Hog Oiler Co., 1,295,114

PATENTEE INDEX

Abbott, Selmon, 1,577,435
Ackeren, Fred V., 1,459,349
Ambler, Paul C., (See Tharp, Frank E.)
Anderson, Andrew, 1,597,663
Andrews, Clarence S., 1,243,127
Barhite, John, 1,291,367
Barnes, Eugene K., 1,273,311
Barry, Thomas A., 1,509,464
Bernstein, Willie E., (See Hemm, Paul P.)
Bird, David B., 1,230,843
Bloomer, Reubin H., 1,225,920; 1,238,093
Boldry, Rufus C., 1,237,606
Bonney, Bick R., 1,233,286
Bouma, Louis C., 1,339,543
Brady, Charles P., (See Girvin, Fitzhugh B.)
Bratton, Edna V., 1,215,336
Brewster, Rufus C., 1,483,506
Bristol, Joseph G., 1,318,477
Brown, Millard K., 1,886,635
Burnett, Charley, 1,389,435
Burns, John G., 1,229,881
Burrell, William C., 1,301,904

Burt, Clement P., 1,380,189
Busby, Harley S., 1,295,114; 1,295,115
Cardwell, John W., 1,506,290
Carson, Alvin T., 1,263,527
Carson, Robert W., 1,221,675
Children, Frank R., 1,241,495
Christiansen, Christian G., 1,654,363
Chudomelka, John T., 1,704,724
Clements, Elmer R., 1,528,402; 1,543,601; 1,636,624
Cole, Samuel F., 1,800,602
Conelly, Arthur H., and Schell, Theodore, 1,289,670
Cooper, John W., (See Taylor, Raolo)
Corington, James W., 1,396,257
Coughlin, Francis A., 1,487,147
Cox, Charles A., 1,216,081
Cox, John O., 1,600,454
Criner, Harry J., 1,303,815
Crockenberger, Nickless, 1,260,339
Cummings, Benjamin, 1,500,301
Curran, James R., 1,382,066
Curttright, George L., 1,327,088
De Witt, James V., 1,558,251
Dick, David S., 1,471,109
Dorsey, Oren M., 1,371,200
Doty, Nicholas M., 1,305,965; 1,478,178
Duckham, Harry D., 1,306,473
Durham, William E., 1,522,426
Eckerman, Allen H., 1,620,013
Elliott, William A., 1,724,345
Enochs, Claude D., 1,320,326
Ericson, George W., 1,238,900
Erlandson, Victor E., 1,562,318
Fey, Albert D., Nicholson, Charles S., and Nicholson, Ned J., 1,519,608
Findlay, James C., 1,511,450
Fleming, Clifford A., 1,541,805
Flynn, Willard M., 1,229,435
Forquer, Wiley, (See Smith, Archie)
Fox, Edward F., (See Larkin, Charles J.)
Fox, Erbie M., (See Larkin, Charles J.)
Fransen, Albert G., 1,512,530
Frink, Harvey W. G., 1,252,256
Gibbons, John W., 1,427,204
Girvin, Fitzhugh B., and Brady, Charles P., 1,258,763
Graves, Jacob H., 1,885,342
Guthrie, George A., 1,576,046
Haisley, Charles A., 1,390,611
Hall, Everett E., (See Merrill, Charles F.)
Hansen, Laurits, 1,721,731
Hare, John R., 1,255,601
Hargraves, Charles W., 1,734,035
Harrison, Frank W., (See Peck, Thomas E.)
Harrison, William H., (See Wenzelmann, Gustave)
Hedrick, Clarence E., 1,453,674
Hemm, Paul P., and Bernstein, Willie E., 1,559,750

Hendrickson, Elwood D., 1,505,641
Hinken, Herman H., 1,546,898
Hixon, Glenn A., 1,556,935
Hockersmith, James B., 1,559,430
Hurff, Lucien W., 1,237,784; 1,289,458
James, Perry C., 1,316,097
James, William D., 1,307,862
Jensen, Niels C., 1,315,309
Jensen, Niels C., (See Truckenbrodt, John)
Johnson, Charles H., 1,338,084; 1,413,536
Johnson, Ernest, S., 1,290,753
Kaehler, Henry J., 1,840,957
Kenyon, Harry, 1,433,081
Klaassen, John H., 1,642,891
Knerr, Benjamin F., 1,229,094
Koerner, Alvin J., 1,677,560
Kuehn, Henry F., 1,508,749
Kunath, Robert, 1,552,846
Kyle, Joseph M., 1,710,314
La Breche, Alphonse, 1,259,416
Larkin, Charles J., Fox, Edward F., and Fox, Erbie M., 1,314,274
Larkin, Paul P., 1,381,715
Larson, Erick, 1,627,516
Leeper, Isaac W., 1,318,159; 1,442,891
Leffler, Arthur O., 1,603,053
Lemon, Orlando A., 1,535,839
Lennox, Talbot, 1,211,187
Le Valley, Fred H., 1,516,861
Lillian, Emil V., 1,756,648
Little, Herbert L., 1,295,908
Long, James J., 1,715,241
Loomis, Charles H., 1,355,057
Lowes, Ralph C., 1,270,425
McCormack, William O., 1,498,664
McPherson, Andrew, 1,535,614
Marsh, William J., 1,225,456; 1,289,852
Medearis, Lorain C., 1,840,732
Miller, Frank F., 1,243,961
Miller, Oscar, 1,818,419
Morris, Wilfred, 1,837,571
Morrison, Arthur, 1,360,007
Mouser, William C., and Speakman, John A., 1,315,322
Moyers, George F., 1,300,997
Mullins, Thomas L., 1,345,801
Merrill, Charles F., and Hall, Everett E., 1,312,130; 1,340,071
Nasser, Albert A., 1,256,357
Nelson, William D., 1,516,202
Newcomer, Edward M., 1,635,951
Nicholson, Charles S., (See Fey, Albert D.)
Nicholson, Ned J., (See Fey, Albert D.)
Oliver, Rolliance W., 1,213,682
Orstad, Elmer M., 1,459,601
Osborne, John W., (See Taylor John W.)

Pack, Robert E., 1,213,129
Palm, Bernard L., (See Palm, Herbert B.)
Palm, Herbert B., and Palm, Bernard L., 1,625,677
Peck, Thomas, E., 1,834,175
Peck, Thomas E., and Harrison, Frank W., 1,566,558; 1,604,303
Rflaum, Emil, 1,581,544, 1,582,144
Perkins, Clarence, 1,728,443
Perry, Murle, 1,256,828
Peterson, Clarence N., 1,460,561
Pheifer, Klaas, 1,747,597
Porter, Edgar F., 1,316,970
Randall, Glen, 1,300,297
Randolph, Alva F., 1,311,772
Reif, Andrew B., 1,494,286
Reins, Jacob, and Snyder, Joe, 1,933,071
Rigg, Thomas F., (See Snider, Ora O.)
Rizk, Elias, 1,241,023
Roberts, John, 1,559,781
Rose, Charles M., 1,890,163
Rowe, Alvin V., 1,319,362
Schell, Theodore, (See, Conelly, Arthur H.)
Schepp, Albert J., and Schepp, Herman J., 1,219,352
Schepp, Herman J., (See Schepp, Albert J.)
Schipper, Herman J., 1,302,979
Schultz, Ferdinand H., 1,276,972
Shaw, Bruce A., 1,396,533
Sherman, Charles W., 1,298,804
Shimp, William E., 1,731,181
Shoemaker, Murry, 1,492,142
Shores, George A., 1,221,484
Sipe, Bruce E., 1,252,728
Smith Archie, and Forquer, Wiley, 1,215,884
Smoot, Daisy E., 1,879,915
Snider, Ora O., and Rigg, Thomas F., 1,527,611
Snyder, Joe, 1,767,560; 1,810,228
Snyder, Joe, (see Reins, Jacob)
Speakman, John A., (See Mouser, William C.)
Stanton, Charles R., 1,577,938
Starbuck, Ernest, 1,212,415; 1,315,583
Storjohann, Henry, 1,270,234
Stover, Frank Z., 1,506,290
Stuart, Edwin T., 1,425,348
Sundre, Olaf E., 1,342,776
Svensen, Carlos B., 1,384,168
Swift, William S., 1,276,591
Taylor, John W., and Osborne, John W., 1,438,410
Taylor, Raolo, and Cooper, John W., 1,632,635
Teyen, Alfred, (See Teyen, Peter)
Teyen, Peter, and Teyen, Alfred, 1,696,460
Tharp, Frank E., and Ambler, Paul C., 1,273,014
Thatch, William P., 1,751,669
Tobin, Charles J., (See Tobin, John R.)
Tobin, John R., and Tobin, Charles J., 1,488,768; 1,543,960

Truckenbrodt, John, and Jensen, Niels C., 1,429,206
Twitchell, Edward R., 1,297,753
Vaughn, Harry N., 1,817,449
Weigel, Frank P., 1,311,933
Wenzelmann, Gustave, and Harrison, William H., 1,235,265
Whaley, Basil H., 1,269,352
Wike, William H., 1,580,357
Womack, Daniel H., 1,473,532; 1,493,411
Woudema, Andrew, 1,335,629
Wright, Joseph, 1,569,904